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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,817	06/18/2001	Jens Barrenscheen	GR 00 P 12246	2567

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EXAMINER	
KNOLL, CLIFFORD H	

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/883,817	BARRENSCHEEN ET AL.	
	Examiner	Art Unit	
	Clifford H Knoll	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-28,30-46,93 and 94* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-28, 30-46, and 93-94* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to communication filed 10/07/04. Currently claims 1-5, 7-28, 30-46, and 93-94 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. *Claims 1-5, 7-28, 30-46, and 93-94 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.*

In claims 1, 24, and 93-94, the method and apparatus for forming the units, and for defining or determining settings has no basis for enablement in the specification. Instead the specification reintroduces the claims using such language as "the device is designed in such a way that the data to be transmitted can be transmitted...." (paragraphs [0047], [0048]) without specifying how such design is intended. While a description of frames, as disclosed in Figure 2, and claims 8, 31, 54, and 77 can be found in the specification, there is inadequate disclosure of the means by which units

are formed "partly with at least one region defining a given time slot" (see claims 1 and 24).

Applicant claims "second and third devices, enabled for outputting data within the given time slot, settings selected from the group consisting of a setting to determine under which conditions information and/or data are to be output within the given time slot" (claim 1); however this is not at all addressed by the examples from the specification given by Applicant. Devices are claimed as "enabled for outputting" but literally this feature of the device is not enabled in the specification, nor is the selection of settings from a group enabled. The specification, at its most explicit, discloses that "[t]he device in question here is distinguished by the fact that the device is designed in such a way that the data to be transmitted, together with information which is required or useful for the transmission and/or the use of the data" (p. 14, lines 18-23), and later, that "settings are made in the device to determine under which conditions it has to output information and/or data within the time slot" (p. 14, line 26 – p. 15, line 3); however there is no disclosure as to how to make or use the selective outputting or the setting of information without undue experimentation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. *Claims 1-5, 8-28, 31-46, and 93-94 are rejected under 35 U.S.C. 102(e) as being anticipated by Deng (US 6347097).*

Regarding claims 1 and 24, Deng discloses transmitting in units data from a first device to one or more second devices together with information (e.g., col.6, lines 34-40); forming units at least partly with at least one region defining a given time slot within which the devices transmitting no data can output data representing specific information (e.g., col.6, lines 29-32; Figure 4, "subaction gap"), defining in the enabled devices, settings selected from the group consisting of a setting to determine under which conditions data are to be output within the given time slot, a setting which data representing information are to be output within the given time slot and a setting at which points in time within the time slot the data are to be output (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Regarding claims 2 and 25, Deng also discloses determining settings before transmission (e.g., col.4, lines 47-52).

Regarding claims 3 and 26, Deng also discloses with one or more devices connected to the bus (e.g., col.3, lines 56-57).

Regarding claims 4 and 27, Deng also discloses determining settings based on one of data and instructions transmitted (e.g., col.4, lines 47-52).

Regarding claims 5 and 28, Deng also discloses determining settings upon initializing the devices (e.g., col.4, lines 47-52).

Regarding claims 8 and 31, Deng also discloses frames (e.g., Figure 6).

Regarding claims 9 and 32, Deng also discloses messages (e.g., Figure 5, "acknowledge").

Regarding claims 10 and 33, Deng also discloses serial transmission at a clock rate (e.g., col.1, lines 39-40).

Regarding claims 11 and 34, Deng also discloses determining with the data and information contained in the units containing the data to be transmitted together with the information whether certain devices output information onto the bus at which points in time (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Regarding claims 12 and 35, Deng also discloses determining with the data and information contained in units output (e.g., col.6, lines 29-32).

Regarding claims 13 and 36, Deng also discloses defining the given time slot for transmission of one or more bits (e.g., col.6, lines 34-40).

Regarding claims 14 and 37, Deng also discloses a positive acknowledge bit (e.g., col.7, lines 51-54).

Regarding claims 15 and 38, Deng also discloses acknowledging fault free reception by outputting a positive acknowledgement bit onto the bus (e.g., col.7, lines 51-54).

Regarding claims 16 and 39, Deng also discloses having to acknowledge fault free reception by outputting a positive acknowledge bit, the plurality set such that the positive acknowledge bits are output by the plurality of devices at different points in time if appropriate (e.g., Figure 4, "ACK").

Regarding claims 17 and 40, Deng also discloses devices for which the data is not intended do not output any data onto the bus at least at the points in time at which the devices for which the data transmitted via the bus is intended must be able to acknowledge the fault-free reception of data (e.g., Figure 4, "ACK GAP"; col.4, lines 55-57).

Regarding claims 18 and 41, Deng also discloses a negative acknowledge bit (e.g., col.7, lines 51-54).

Regarding claims 19 and 42, Deng also discloses exclusively devices for which the data transmitted via the bus is intended to signal non-fault free reception of the data (e.g., col.7, lines 51-54).

Regarding claims 20 and 43, Deng also discloses they have to signal the non-fault free reception of the data by outputting a negative acknowledge bit at least some of the plurality of the devices are set such that they output at the same time the negative acknowledge bits that are to be output if appropriate (e.g., col.6, lines 45-52, "ack-gap").

Regarding claims 21 and 44, Deng also discloses devices for which the data transmitted is not intended do not output any data (e.g., col.6, lines 49-52).

Regarding claims 22 and 45, Deng also discloses devices output positive acknowledge bits at different points in time or negative acknowledge bits at other different points in time (e.g., col.7, lines 51-54).

Regarding claims 23 and 46, Deng also discloses devices set such that a content of the current frame or of a specific preceding frame or the content of the current message determines which of the devices has to output which information onto the bus at which point in time (e.g., col.6, lines 3-12).

Regarding claims 93 and 94, Deng also discloses transmitting data and information concerning at least one of transmission and use of data from one device to others (e.g., col.6, lines 34-40), forming units at least partly with at least one region defining a given time slot (e.g., col.6, lines 29-32; Figure 4, "subaction gap"), defining variable settings selected from the group consisting of a setting to determine under which conditions data are to be output within the given time slot, a setting which data representing information are to be output within the given time slot and a setting at which points in time within the time slot the data are to be output (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. *Claims 7 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng as applied in respective parent claims, in view of Levy (US 6212633).*

Deng does not expressly mention the implementational detail of a non-volatile memory device; however these devices are widely known and appreciated in the field for storing information, as exemplified by Levy. Levy discloses storing the settings relating to the given time slot in non-volatile memory devices (e.g., col.18, line 65 – col. 19, line 13).

It would be obvious to combine Levy with Deng, because Levy teaches a particular use of non-volatile memory in the improvement of storing settings for transmitting data in a 1394 serial bus implementation, such as that taught by Deng. Therefore it would be obvious to one of ordinary skill in the art to combine Levy with Deng at the time the invention was made.

Response to Arguments

Applicant's arguments filed 10/07/04 have been fully considered but they are not persuasive.

Regarding the rejection under 35 USC §112(1), Applicant argues that "numerous specific details with regards to the frames or messages are set forth" (p. 22); however, Applicant fails to specifically cite any examples drawn from the specification. One of

ordinary skill in the art would not be able to practice the invention without further disclosure.

Applicant further argues that the description of the REPLY field in the specification provides adequate disclosure of the means by which units are formed (p. 23); Examiner assumes Applicant is referring to disclosure on pages 21-22, which describe examples of a "very wide range of information" (p. 21) and proceeds to list three categories; however the disclosure fails to enable the selecting of this information. Continuing on page 22, Applicant discloses "settings which determine which device has to output which information onto the bus at which point in time are preferably made in the respective devices themselves. As a result, the respective devices can output onto the bus independently, i.e., without triggering or authorization by the device controlling the bus allocation or by some other device, the data to be output by them onto the bus, and can do this at the correct time" (pp. 22-23). A person of ordinary skill in the art would be unable to achieve this result from the disclosure without undue experimentation. Consequently, the recitation of "settings selected from the group consisting of a setting to determine under which conditions information and/or data are to be output within the given time slot, a setting to determine which information and/or data are to be output within the given time slot, and a setting to determine at which points in time within the given time slot the information and/or data are to be output" is not enabled.

Regarding the 102 rejection, Applicant argues that "Deng does not show transmitting data together with information concerning at least one of a transmission

and a use of the data during a given time slot for output of responsive information by other devices on the bus" nor does Deng show "forming the units with at least one region defining a given time slot" (p. 27); however, Deng discloses precisely this: "data packet transmission ... all followed by an acknowledgement field" as cited supra (col. 6, lines 34-41).

Applicant further argues that "Deng does not show 'defining... variable settings'" and distinguishes his invention as "allow[ing] for second and third devices on the bus to output 'data within the given time slot'" (p. 28); however, the distinction of "variable" fails to distinguish the response field of Deng, or, for that matter, any response, which, if meaningful, necessarily comprises variable settings.

Applicant argues that Levy, at the correct citation (noted by Applicant, and corrected supra), discloses the use of non-volatile memory "with respect to storing an authorization list and key cache"; which "[m]oreover, ... refers to the PHY layer, which is below the layer used and therefore arguably non-analogous (p. 30); however, Levy was used only to teach the widely known use of non-volatile storage for storing field settings. The particular settings stored and the particular layer at which the settings apply in Levy's particular embodiment, do not render non-obvious the application of Levy's principle teaching-- that of non-volatile storage for communication settings-- to the storage of the settings taught by Deng.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 571-272-3636. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk

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